WHAT IS CLAIMED IS:

1   1.   A computer-implemented method of purchasing items comprising:

2   storing first mapping information for a first plurality of items, the first

3   mapping information identifying a first plurality of purchasable units associated with items in

4   the first plurality of items;

5   receiving a purchase request comprising information related to a first project

6   from a computer system;

7   determining a second plurality of items from the information related to the

8   first project, the second plurality of items included in the first plurality of items;

9   determining a second plurality of purchasable units corresponding to the

10   second plurality of items based upon the first mapping information; and

11   communicating information related to the second plurality of purchasable

12   units to the computer system.

1   2.   The method of claim 1 wherein receiving the purchase request

2   comprising information related to the first project comprises:

3   accessing a web page displaying the information related to the first project;

4   and

5   initiating the purchase request using the web page.

1   3.   The method of claim 1 wherein:

2   the information related to the first project comprises a first project identifier

3   identifying the first project; and

4   determining the second plurality of items from the information related to the

5   first project comprises:

6   storing second mapping information for a plurality of project

7   identifiers, the plurality of project identifiers including the first project identifier, the second

8   mapping information associating at least one item from the first plurality of items with each

9   project identifier in the plurality of project identifiers;

10   based upon the second mapping information, determining items from

11   the first plurality of items associated with the first project identifier; and

12   including the items associated with the first project identifier in the

13   second plurality of items.

1   4.   The method of claim 1 wherein determining a second plurality of items

2 from the information related to the first project comprises:

3   storing second mapping information for a first plurality of item

4 descriptors, the second mapping information associating each item descriptor in the first

5 plurality of item descriptors with at least one item from the first plurality of items;

6   extracting a second plurality of item descriptors from the information

7 related to the first project, the second plurality of item descriptors included in the first

8 plurality of item descriptors; and

9   determining the second plurality of items corresponding to the second

10 plurality of item descriptors based upon the second mapping information.

1   5.   The method of claim 1 wherein the information related to the first

2 project comprises scaling information for the first project, the method further comprising:

3   determining, from the information related to the first project, quantities

4 associated with the second plurality of items; and

5   scaling the quantities associated with the second plurality of items based upon

6 the scaling information for the first project.

1   6.   The method of claim 5 wherein scaling the quantities associated with

2 the second plurality of items comprises:

3   for each item in the second plurality of items:

4   determining a first value based on the scaling information; and

5   multiplying the quantity associated with the item by the first value to

6 determine a scaled quantity for the item.

1   7.   The method of claim 6 wherein determining the second plurality of

2 purchasable units corresponding to the second plurality of items based upon the first mapping

3 information comprises determining items in the second plurality of purchasable items based

4 on the scaled quantities associated with items in the second plurality of items.

1   8.   The method of claim 5 wherein scaling the quantities associated with

2 the second plurality of items comprises:

3   storing scaling rules indicating rules for scaling quantities associated with

4 items in the second plurality of items; and

5   for each item in the second plurality of items:

6   determining a first value based on the scaling information and the

7   scaling rule for the item; and

8   multiplying the quantity associated with the item by the first value to

9   determine a scaled quantity for the item.

1   9.   The method of claim 1 wherein determining the second plurality of

2   purchasable units corresponding to the second plurality of items based upon the first mapping

3   information comprises:

4   for each item in the second plurality of items:

5   based upon the first mapping information, determining purchasable

6   units from the first plurality of purchasable units associated with the item; and

7   including the purchasable units associated with the item in the second

8   plurality of purchasable units.

1   10.   The method of claim 1 further comprising outputting the information

2   related to the second plurality of purchasable units.

1   11.   The method of claim 10 wherein outputting the information related to

2   the second plurality of purchasable units comprises:

3   generating a presentation list based upon information related to the second

4   plurality of purchasable units; and

5   displaying the presentation list.

1   12.   The method of claim 11 wherein the presentation list is generated

2   based upon user preferences.

1   13.   The method of claim 1 wherein the first project is selectable from a

2   group of projects including a recipe for preparing a food dish, a project for building a

3   computer, a project to repair a leaking faucet, and a project to build a house.

1   14.   A computer-implemented method of purchasing items comprising:

2   storing first mapping information for a first plurality of items, the first

3   mapping information identifying a first plurality of purchasable units corresponding to the

4   first plurality of items;

5   receiving a purchase request comprising information related to a first project

6   and a second project from a computer system;

7	determining a second plurality of items from the information related to the
8	first project, the second plurality of items included in the first plurality of items;
9	determining a third plurality of items from the information related to the
10	second project, the third plurality of items included in the first plurality of items;
11	determining a fourth plurality of items including items from the second
12	plurality of items and the third plurality of items;
13	determining a second plurality of purchasable units corresponding to the
14	fourth plurality of items based upon the first mapping information; and
15	communicating information related to the second plurality of purchasable
16	units to the computer system.

1	15. The method of claim 14 wherein:
2	the second plurality of items includes a first item and a first quantity
3	associated with the first item;
4	the third plurality of items includes the first item and a second quantity
5	associated with the first item; and
6	determining the fourth plurality of items including items from the second
7	plurality of items and the third plurality of items comprises:
8	including the first item in the fourth plurality of items; and
9	associating a third quantity with the first item in the fourth plurality of
10	items, wherein the third quantity is a sum of the first quantity and the second quantity.

1	16. The method of claim 15 wherein:
2	the first quantity is associated with a first unit of measure;
3	the second quantity is associated with a second unit of measure; and
4	associating the third quantity with the first item in the fourth plurality of items
5	comprises:
6	if the first unit of measure is different from the second unit of measure,
7	converting the second quantity to a fourth quantity having the first unit of measure; and
8	determining the third quantity by adding the first quantity and the
9	fourth quantity.

| 1 | 17. A computer-implemented method of purchasing items for a first |
| 2 | project comprising: |

3   storing an information model comprising information for a first plurality of

4   items, the information describing attributes of the first plurality of items, substitute items for

5   the first plurality of items, and hierarchical relationships between the items in the first

6   plurality of items,

7   storing first mapping information for the first plurality of items, the first

8   mapping information identifying a first plurality of purchasable units associated with items in

9   the first plurality of items;

10   receiving a purchase request comprising information related to the first project

11   from a computer system;

12   determining a second plurality of items from the information related to the

13   first project, the second plurality of items included in the first plurality of items;

14   determining a second plurality of purchasable units corresponding to the

15   second plurality of items based upon the information stored by the information model and the

16   first mapping information; and

17   communicating information related to the second plurality of purchasable

18   units to the computer system.

1   18.   The method of claim 17 wherein determining the second plurality of

2   purchasable units corresponding to the second plurality of items based upon the information

3   stored by the information model and the first mapping information comprises:

4   determining a substitute item for at least one item in the second plurality of

5   items based upon information stored by the information model;

6   determining a purchasable unit corresponding to the substitute item based

7   upon the first mapping information; and

8   including the purchasable unit corresponding to the substitute item in the

9   second plurality of purchasable units.

1   19.   The method of claim 17 wherein the hierarchical relationships between

2   items in the first plurality of items include a first relationship between a first item and a

3   second item from the first plurality of items, the first relationship indicating that the second

4   item is a specialization of the first item.

1   20.   The method of claim 17 wherein the hierarchical relationships between

2   items in the first plurality of items include a first relationship between a first item and a

3   second item from the first plurality of items, the first relationship indicating that the second

4   item is a component of the first item.

1   21.   A computer-implemented method of shopping for a project

2   comprising:

3   accessing a web page displaying information related to the project;

4   generating a purchase request based upon the information related to the

5   project;

6   in response to the purchase request, receiving information related to a plurality

7   of purchasable units, the plurality of purchasable units corresponding to a plurality of items

8   described by the information related to the project; and

9   selecting at least one purchasable unit from the plurality of purchasable units

10   for purchase.

1   22.   A system for purchasing items comprising:

2   a first computer system; and

3   a second computer system coupled to the first computer system;

4   wherein the second computer system is configured to:

5   store first mapping information for a first plurality of items, the first

6   mapping information identifying a first plurality of purchasable units associated with items in

7   the first plurality of items;

8   receive a purchase request comprising information related to a first

9   project from the first computer system;

10   determine a second plurality of items from the information related to

11   the first project, the second plurality of items included in the first plurality of items;

12   determine a second plurality of purchasable units corresponding to the

13   second plurality of items based upon the first mapping information; and

14   communicate information related to the second plurality of purchasable

15   units to the first computer system.

1   23.   The system of claim 22 wherein:

2   the information related to the first project comprises a first project identifier

3   identifying the first project; and

4   in order to determine the second plurality of items from the information

5   related to the first project, the second computer system is configured to:

6   store second mapping information for a plurality of project identifiers,

7   the plurality of project identifiers including the first project identifier, the second mapping

8   information associating at least one item from the first plurality of items with each project

9   identifier in the plurality of project identifiers;

10   based upon the second mapping information, determine items from the

11   first plurality of items associated with the first project identifier; and

12   include the items associated with the first project identifier in the

13   second plurality of items.

1   24.   The system of claim 22 wherein in order to determine a second

2   plurality of items from the information related to the first project, the second computer

3   system is configured to:

4   store second mapping information for a first plurality of item

5   descriptors, the second mapping information associating each item descriptor in the first

6   plurality of item descriptors with at least one item from the first plurality of items;

7   extract a second plurality of item descriptors from the information

8   related to the first project, the second plurality of item descriptors included in the first

9   plurality of item descriptors; and

10   determine the second plurality of items corresponding to the second

11   plurality of item descriptors based upon the second mapping information.

1   25.   The system of claim 22 wherein the information related to the first

2   project comprises scaling information for the first project, and the second computer system is

3   further configured to:

4   determine, from the information related to the first project, quantities

5   associated with the second plurality of items; and

6   scale the quantities associated with the second plurality of items based upon

7   the scaling information for the first project.

1   26.   The system of claim 25 wherein in order to scale the quantities

2   associated with the second plurality of items, the second computer system is configured to:

3   for each item in the second plurality of items:

4   determine a first value based on the scaling information; and

5   multiply the quantity associated with the item by the first value to

6   determine a scaled quantity for the item.

1   27.   The system of claim 26 wherein in order to determine the second

2   plurality of purchasable units corresponding to the second plurality of items based upon the

3   first mapping information, the second computer system is configured to determine items in

4   the second plurality of purchasable items based on the scaled quantities associated with items

5   in the second plurality of items.

1   28.   The system of claim 25 wherein in order to scale the quantities

2   associated with the second plurality of items, the second computer system is configured to:

3   store scaling rules indicating rules for scaling quantities associated with items

4   in the second plurality of items; and

5   for each item in the second plurality of items:

6   determine a first value based on the scaling information and the scaling

7   rule for the item; and

8   multiply the quantity associated with the item by the first value to

9   determine a scaled quantity for the item.

1   29.   The system of claim 22 wherein in order to determine the second

2   plurality of purchasable units corresponding to the second plurality of items based upon the

3   first mapping information, the second computer system is configured to:

4   for each item in the second plurality of items:

5   based upon the first mapping information, determine purchasable units

6   from the first plurality of purchasable units associated with the item; and

7   include the purchasable units associated with the item in the second

8   plurality of purchasable units.

1   30.   The system of claim 22 wherein the first computer system is

2   configured to output the information related to the second plurality of purchasable units

3   received from the second computer system.

1   31.   A data-processing system for purchasing items comprising:

2   a storage device; and

3   a processor coupled to the storage device,

4   the storage device storing a program for controlling the processor, and

5   the processor operative with the program to:

6   receive a purchase request comprising information related to a first

7   project and a second project from a computer system;

8   determine a second plurality of items from the information related to

9   the first project, the second plurality of items included in the first plurality of items;

10   determine a third plurality of items from the information related to the

11   second project, the third plurality of items included in the first plurality of items;

12   determine a fourth plurality of items including items from the second

13   plurality of items and the third plurality of items;

14   determine a second plurality of purchasable units corresponding to the

15   fourth plurality of items based upon the first mapping information; and

16   communicate the information related to the second plurality of

17   purchasable units to the computer system.

1   32.   The system of claim 31 wherein:

2   the second plurality of items includes a first item and a first quantity

3   associated with the first item;

4   the third plurality of items includes the first item and a second quantity

5   associated with the first item; and

6   in order to determine the fourth plurality of items including items from the

7   second plurality of items and the third plurality of items, the processor is further operative

8   with the program to:

9   include the first item in the fourth plurality of items; and

10   associate a third quantity with the first item in the fourth plurality of

11   items, wherein the third quantity is a sum of the first quantity and the second quantity.

1   33.   The system of claim 32 wherein:

2   the first quantity is associated with a first unit of measure;

3   the second quantity is associated with a second unit of measure; and

4   in order to associate the third quantity with the first item in the fourth plurality

5   of items, the processor is further operative with the program to:

6   if the first unit of measure is different from the second unit of measure,

7   convert the second quantity to a fourth quantity having the first unit of measure; and

8   determine the third quantity by adding the first quantity and the fourth

9   quantity.

1   34.   An apparatus for purchasing items for a first project comprising:

2   a processor;

3   a memory coupled to the processor, the memory configured to store:

4   an information model comprising information for a first plurality of

5 items, the information describing attributes of the first plurality of items, substitute items for

6 the first plurality of items, and hierarchical relationships between the items in the first

7 plurality of items,

8   first mapping information for the first plurality of items, the first

9 mapping information identifying a first plurality of purchasable units associated with items in

10 the first plurality of items; and

11   a plurality of code modules for execution by the processor, the

12 plurality of code modules comprising:

13   a code module for receiving a purchase request comprising

14 information related to the first project from a first computer system;

15   a code module for determining a second plurality of items from

16 the information related to the first project, the second plurality of items included in the first

17 plurality of items;

18   a code module for determining a second plurality of

19 purchasable units corresponding to the second plurality of items based upon the information

20 stored by the information model and the first mapping information; and

21   a code module for communicating information related to the

22 second plurality of purchasable units to the first computer system.

1   35.   The system of claim 34 wherein the code module for determining the

2 second plurality of purchasable units corresponding to the second plurality of items based

3 upon the information stored by the information model and the first mapping information

4 comprises:

5   a code module for determining a substitute item for at least one item in the

6 second plurality of items based upon information stored by the information model;

7   a code module for determining a purchasable unit corresponding to the

8 substitute item based upon the first mapping information; and

9   a code module for including the purchasable unit corresponding to the

10 substitute item in the second plurality of purchasable units.

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1   36.   The system of claim 34 wherein the hierarchical relationships between

2   items in the first plurality of items include a first relationship between a first item and a

3   second item from the first plurality of items, the first relationship indicating that the second

4   item is a specialization of the first item.

1   37.   The system of claim 34 wherein the hierarchical relationships between

2   items in the first plurality of items include a first relationship between a first item and a

3   second item from the first plurality of items, the first relationship indicating that the second

4   item is a component of the first item.

1   38.   A data-processing system for shopping for a project comprising:

2   a processor;

3   a memory coupled to the processor, the memory configured to store a plurality

4   of code modules for execution by the processor, the plurality of code modules comprising:

5   a code module for accessing a web page displaying information related

6   to the project;

7   a code module for generating a purchase request based upon the

8   information related to the project;

9   in response to the purchase request, a code module for receiving

10   information related to a plurality of purchasable units, the plurality of purchasable units

11   corresponding to a plurality of items described by the information related to the project; and

12   a code module for selecting at least one purchasable unit from the

13   plurality of purchasable units for purchase.

1   39.   A computer program product stored on a computer-readable storage

2   medium for purchasing items, the computer program product comprising:

3   code for storing first mapping information for a first plurality of items, the first

4   mapping information identifying a first plurality of purchasable units associated with items in

5   the first plurality of items;

6   code for receiving a purchase request comprising information related to a first

7   project from a computer system;

8   code for determining a second plurality of items from the information related

9   to the first project, the second plurality of items included in the first plurality of items;

10   code for determining a second plurality of purchasable units corresponding to

11   the second plurality of items based upon the first mapping information; and

12   code for communicating outputting information related to the second plurality

13   of purchasable units to the computer system.

1   40.   The computer program product of claim 39 wherein the code for

2   receiving the purchase request comprising information related to the first project comprises:

3   code for accessing a web page displaying the information related to the first

4   project; and

5   code for initiating the purchase request using the web page.

1   41.   The computer program product of claim 39 wherein:

2   the information related to the first project comprises a first project identifier

3   identifying the first project; and

4   the code for determining the second plurality of items from the information

5   related to the first project comprises:

6   code for storing second mapping information for a plurality of project

7   identifiers, the plurality of project identifiers including the first project identifier, the second

8   mapping information associating at least one item from the first plurality of items with each

9   project identifier in the plurality of project identifiers;

10   based upon the second mapping information, code for determining

11   items from the first plurality of items associated with the first project identifier; and

12   code for including the items associated with the first project identifier

13   in the second plurality of items.

1   42.   The computer program product of claim 39 wherein the code for

2   determining a second plurality of items from the information related to the first project

3   comprises:

4   code for storing second mapping information for a first plurality of item

5   descriptors, the second mapping information associating each item descriptor in the first

6   plurality of item descriptors with at least one item from the first plurality of items;

7   code for extracting a second plurality of item descriptors from the information

8   related to the first project, the second plurality of item descriptors included in the first

9   plurality of item descriptors; and

10   code for determining the second plurality of items corresponding to the second

11   plurality of item descriptors based upon the second mapping information.

1   43.   The computer program product of claim 39 wherein the information

2   related to the first project comprises scaling information for the first project, the computer

3   program product further comprising:

4   code for determining, from the information related to the first project,

5   quantities associated with the second plurality of items; and

6   code for scaling the quantities associated with the second plurality of items

7   based upon the scaling information for the first project.

1   44.   The computer program product of claim 43 wherein the code for

2   scaling the quantities associated with the second plurality of items comprises:

3   for each item in the second plurality of items:

4   code for determining a first value based on the scaling information;

5   and

6   code for multiplying the quantity associated with the item by the first

7   value to determine a scaled quantity for the item.

1   45.   The computer program product of claim 44 wherein the code for

2   determining the second plurality of purchasable units corresponding to the second plurality of

3   items based upon the first mapping information comprises code for determining items in the

4   second plurality of purchasable items based on the scaled quantities associated with items in

5   the second plurality of items.

1   46.   The computer program product of claim 43 wherein the code for

2   scaling the quantities associated with the second plurality of items comprises:

3   code for storing scaling rules indicating rules for scaling quantities associated

4   with items in the second plurality of items; and

5   for each item in the second plurality of items:

6   code for determining a first value based on the scaling information and

7   the scaling rule for the item; and

8   code for multiplying the quantity associated with the item by the first

9   value to determine a scaled quantity for the item.

1   47.   The computer program product of claim 39 wherein the code for
2   determining the second plurality of purchasable units corresponding to the second plurality of
3   items based upon the first mapping information comprises:
4   for each item in the second plurality of items:
5   based upon the first mapping information, code for determining
6   purchasable units from the first plurality of purchasable units associated with the item; and
7   code for including the purchasable units associated with the item in the
8   second plurality of purchasable units.

1   48.   The computer program product of claim 39 further comprising code for
2   outputting the information related to the second plurality of purchasable units.

1   49.   The computer program product of claim 48 wherein the code for
2   outputting the information related to the second plurality of purchasable units comprises:
3   code for generating a presentation list based upon information related to the
4   second plurality of purchasable units; and
5   code for displaying the presentation list.

1   50.   The computer program product of claim 49 wherein the presentation
2   list is generated based upon user preferences.

1   51.   A computer program product stored on a computer-readable storage
2   medium for purchasing items, the computer program product comprising:
3   code for storing first mapping information for a first plurality of items, the first
4   mapping information identifying a first plurality of purchasable units corresponding to the
5   first plurality of items;
6   code for receiving a purchase request comprising information related to a first
7   project and a second project from a computer system;
8   code for determining a second plurality of items from the information related
9   to the first project, the second plurality of items included in the first plurality of items;
10   code for determining a third plurality of items from the information related to
11   the second project, the third plurality of items included in the first plurality of items;
12   code for determining a fourth plurality of items including items from the
13   second plurality of items and the third plurality of items;

14   code for determining a second plurality of purchasable units corresponding to

15   the fourth plurality of items based upon the first mapping information; and

16   code for communicating information related to the second plurality of

17   purchasable units to the computer system.

1   52.   The computer program product of claim 51 wherein:

2   the second plurality of items includes a first item and a first quantity

3   associated with the first item;

4   the third plurality of items includes the first item and a second quantity

5   associated with the first item; and

6   the code for determining the fourth plurality of items including items from the

7   second plurality of items and the third plurality of items comprises:

8   code for including the first item in the fourth plurality of items; and

9   code for associating a third quantity with the first item in the fourth

10   plurality of items, wherein the third quantity is a sum of the first quantity and the second

11   quantity.

1   53.   The computer program product of claim 52 wherein:

2   the first quantity is associated with a first unit of measure;

3   the second quantity is associated with a second unit of measure; and

4   the code for associating the third quantity with the first item in the fourth

5   plurality of items comprises:

6   if the first unit of measure is different from the second unit of measure,

7   code for converting the second quantity to a fourth quantity having the first unit of measure;

8   and

9   code for determining the third quantity by adding the first quantity and

10   the fourth quantity.

1   54.   A computer program product stored on a computer-readable storage

2   medium for purchasing items for a first project, the computer program product comprising:

3   code for storing an information model comprising information for a first

4   plurality of items, the information describing attributes of the first plurality of items,

5   substitute items for the first plurality of items, and hierarchical relationships between the

6   items in the first plurality of items,

7   code for storing first mapping information for the first plurality of items, the

8   first mapping information identifying a first plurality of purchasable units associated with

9   items in the first plurality of items;

10   code for receiving a purchase request comprising information related to the

11   first project from a first computer system;

12   code for determining a second plurality of items from the information related

13   to the first project, the second plurality of items included in the first plurality of items;

14   code for determining a second plurality of purchasable units corresponding to

15   the second plurality of items based upon the information stored by the information model and

16   the first mapping information; and

17   code for communicating information related to the second plurality of

18   purchasable units to the first computer system.

1   55.   The computer program product of claim 54 wherein the code for

2   determining the second plurality of purchasable units corresponding to the second plurality of

3   items based upon the information stored by the information model and the first mapping

4   information comprises:

5   code for determining a substitute item for at least one item in the second

6   plurality of items based upon information stored by the information model;

7   code for determining a purchasable unit corresponding to the substitute item

8   based upon the first mapping information; and

9   code for including the purchasable unit corresponding to the substitute item in

10   the second plurality of purchasable units.

1   56.   The computer program product of claim 54 wherein the hierarchical

2   relationships between items in the first plurality of items include a first relationship between a

3   first item and a second item from the first plurality of items, the first relationship indicating

4   that the second item is a specialization of the first item.

1   57.   The computer program product of claim 54 wherein the hierarchical

2   relationships between items in the first plurality of items include a first relationship between a

3   first item and a second item from the first plurality of items, the first relationship indicating

4   that the second item is a component of the first item.

1   58.   A computer program product stored on a computer-readable storage
2   medium for shopping for a project comprising:
3   code for accessing a web page displaying information related to the project;
4   code for generating a purchase request based upon the information related to
5   the project;
6   in response to the purchase request, code for receiving information related to a
7   plurality of purchasable units, the plurality of purchasable units corresponding to a plurality
8   of items described by the information related to the project; and
9   code for selecting at least one purchasable unit from the plurality of
10   purchasable units for purchase.